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Release Notes

Version 3.0.1.3 – 3rd October 2012

- Improved error messaging (See ***Error Messages*** page 24).
- Filtering Time-series (See ***Filter Time-Series*** page 24).
- Quick search by Site/Location name (See ***Searching Sites/Location in tree by name*** page 25).

Version 3.0.1.2 – 8th May 2012

- SSL option for secure https (See ***SSL Setting*** page 20).

Version 3.0.1.1 – 20th April 2012

- Properties Panel (See ***Properties Panel*** page 19).
- Update installation document for writing to log files by changing settings in IIS.

Version 3.0.1.0 - 12th April 2012

- Server side event logging (See ***Server side event logging*** page 15).
- Capability to specify different map icons based on Location Type (See ***Icons for Location Type*** on page 14).
- Added location filtering (based on Location Type and Location Folder).
- Improved performance through elimination of redundant server queries.
- Documentation of Global Settings (See ***GlobalSetting Table details*** page 12).

Software Pre-requisites

Server Pre-requisites

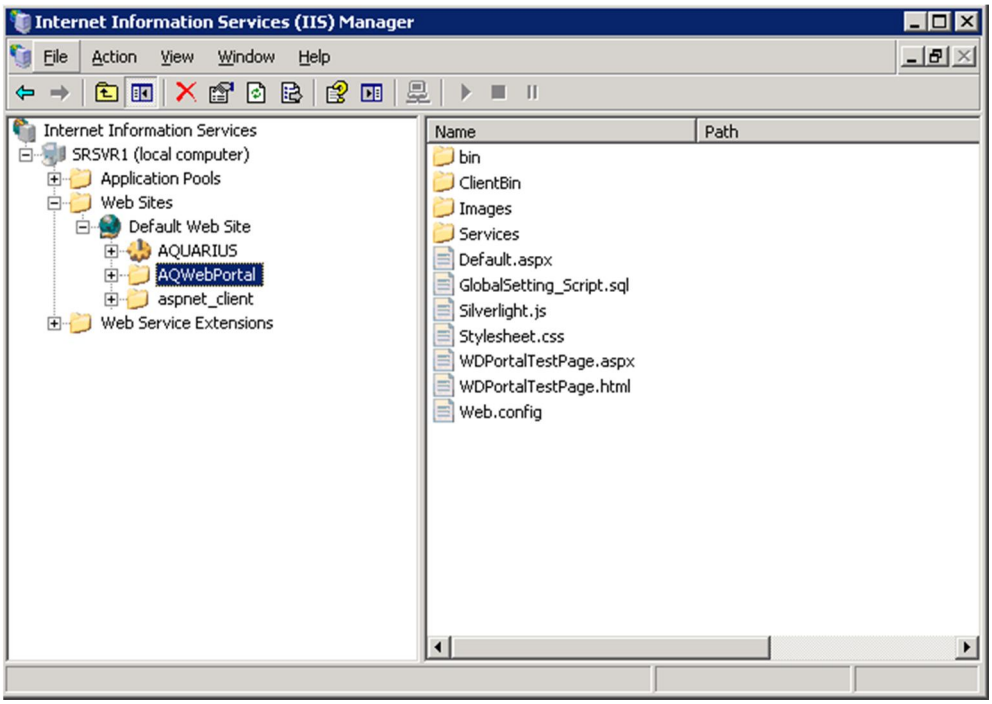
- IIS 6.0 or higher with ASP.NET Enabled
- .NET 2.0 Framework
- .NET 3.5 SP1 Framework

Client Pre-requisites

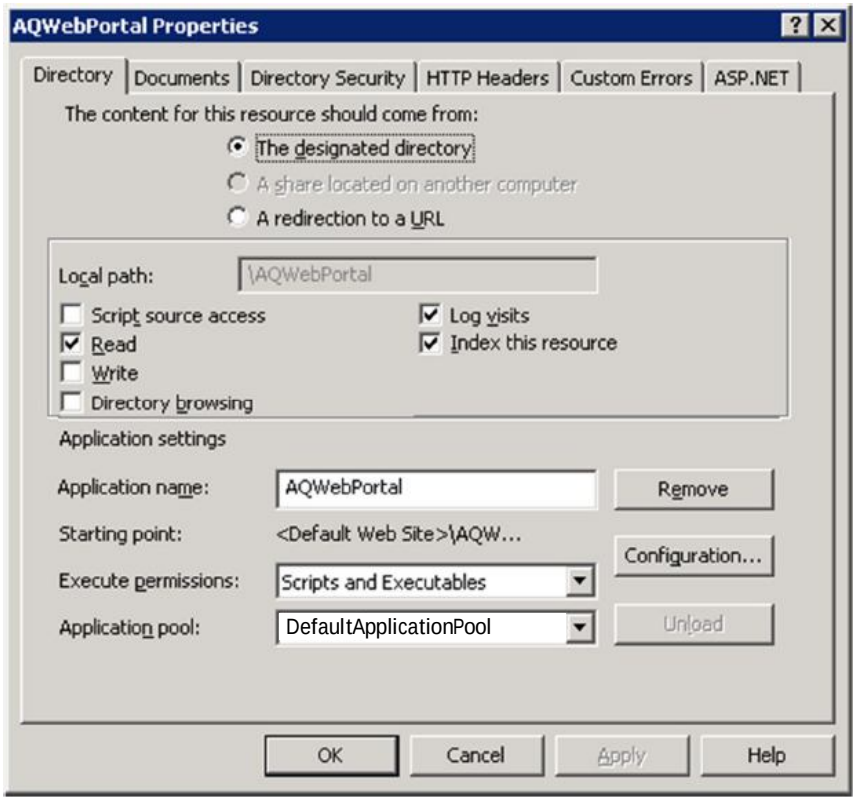
- Silverlight 3.0.40723.0 runtime or higher

Installing on IIS6

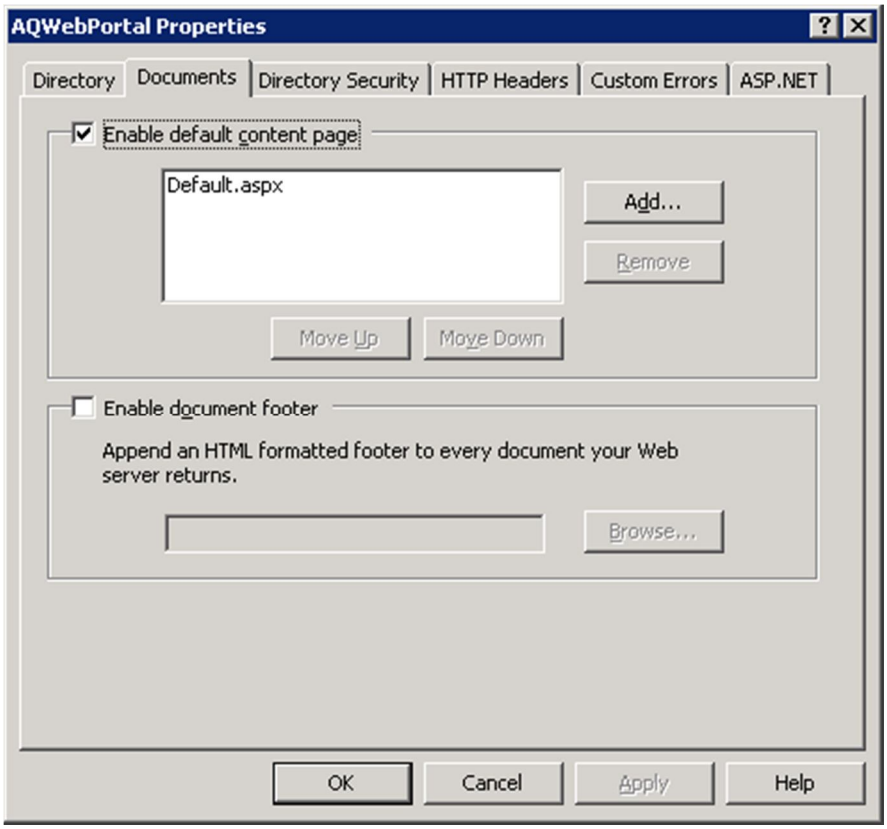
1. Copy the **AQWebPortal** directory and its contents to **C:\Inetpub\wwwroot** on the **Host Server**.
2. Start **Internet Information Services (IIS) Manager**. Find the **AQWebPortal** directory by expanding the **Web Sites** then **Default Web Site** nodes as shown:



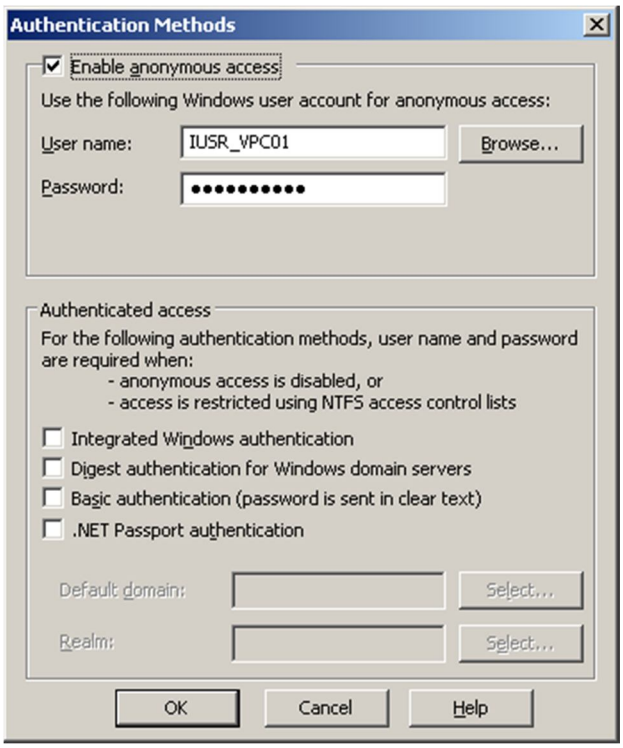
3. Right click the **AQWebPortal** node and select **Properties** to open the **AQWebPortal properties** box.
4. Ensure the **Directories** tab is selected and click **Create** to create the application/web site. Select **Scripts and Executables** from the **Execute permissions** dropdown. Leave the **Application pool** as the default. The **Directory** tab should look as follows:



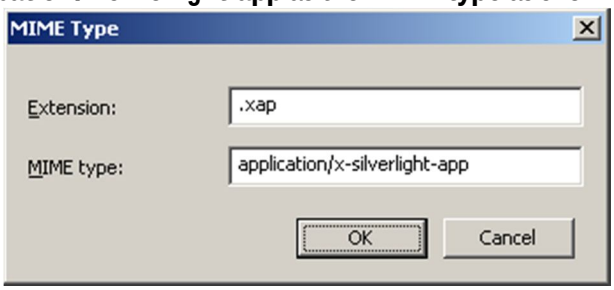
5. Click the **Documents** tab and ensure the **Enable default content page** is **checked**. Remove all entries from the list box by selecting each item and clicking **Remove** until the list is empty. Click **Add** and enter **Default.aspx** at the **Default content page** prompt and click **OK**. The **Documents** tab should look as follows:



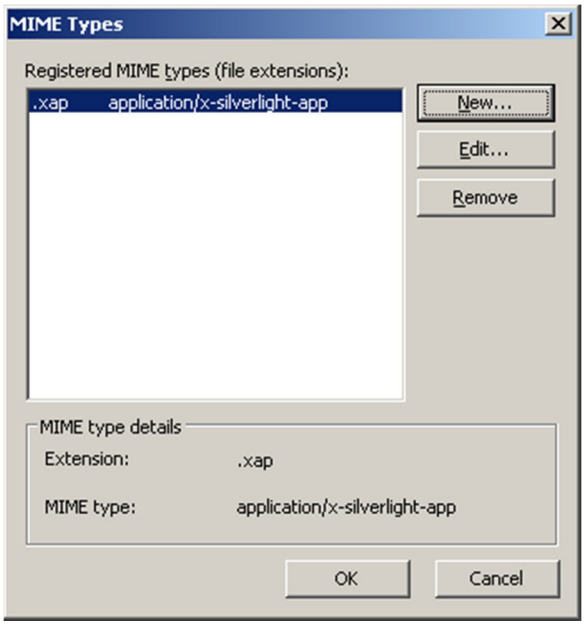
6. Click the **Directory Security** tab and click **Edit** in **Authentication and access control** section**.** Ensure **anonymous access** is the only checked item as shown below. Click OK to return to the **Directory Security** tab.



7. Click the **Http Headers** tab and click **MIME Types**. Click **New** and when prompted enter **.xap** as the **Extension** and **application/x-silverlight-app** as the **MIME type** as shown below, then click **OK.**

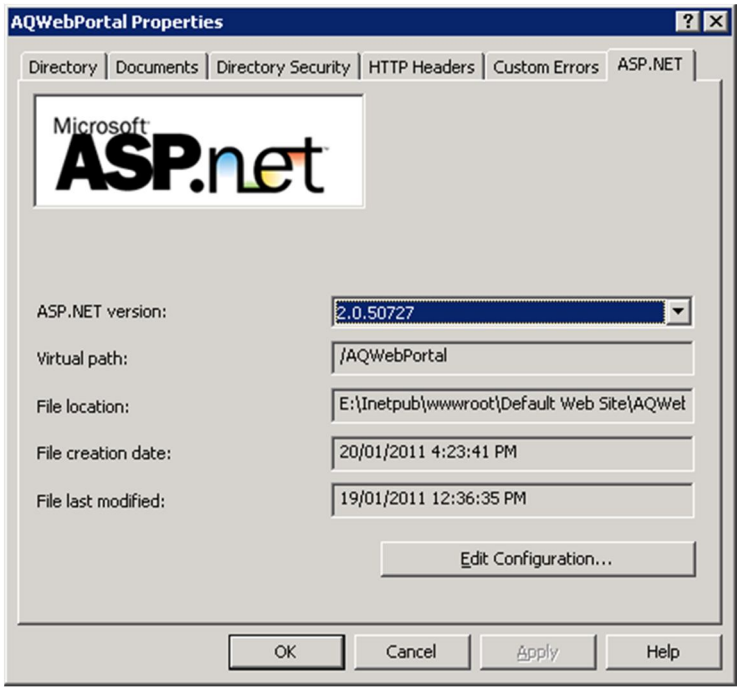


The **Registered MIME types** list box will appear as follows.



Click **OK** to return to **Http Headers** tab.

8. Click the **ASP.NET** tab and select **2.0.50727** from the **ASP.NET version** dropdown as shown:



9. Click **OK** to complete the configuration.

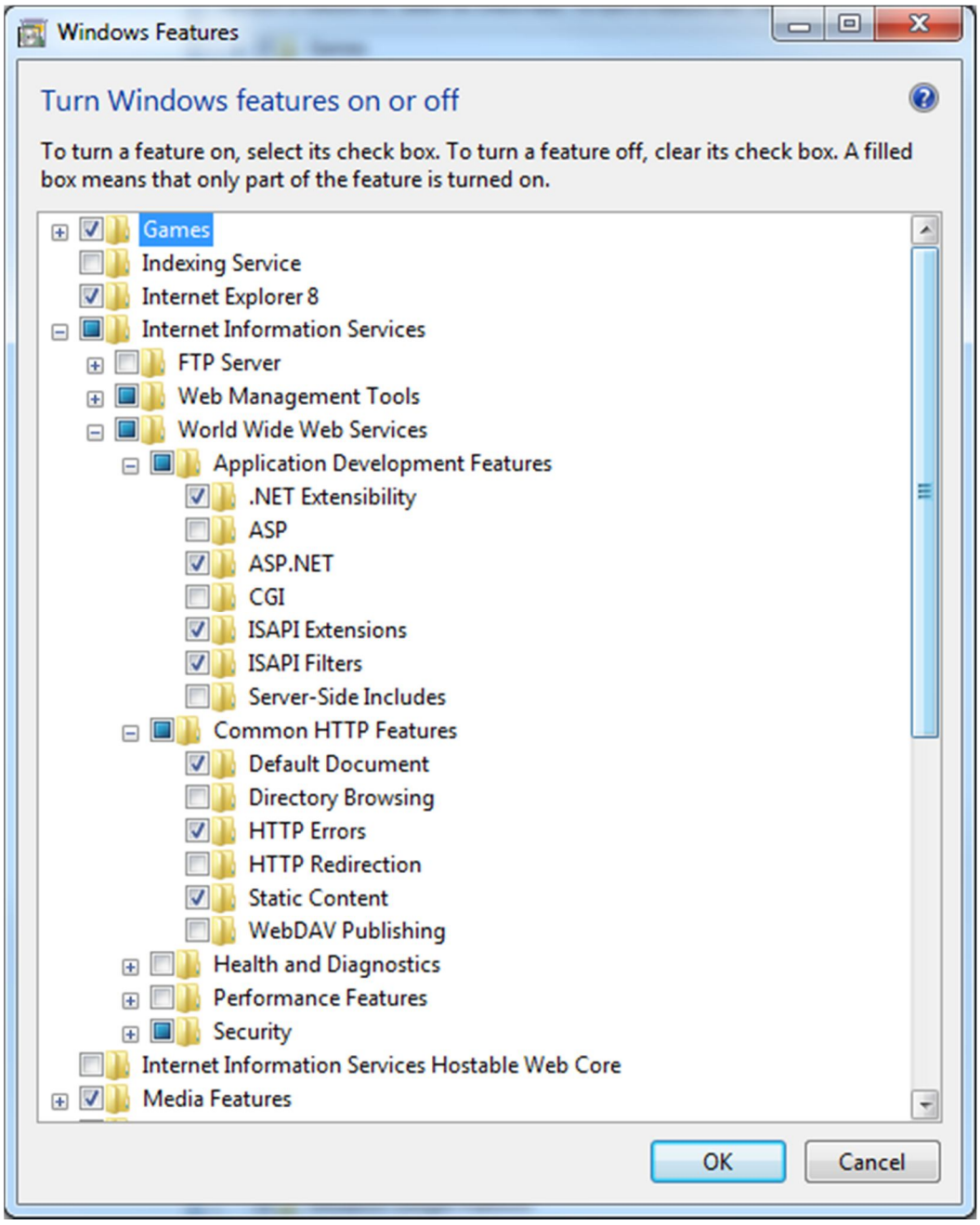
Installing on IIS7

Before installing WDPortal ensure the following Windows features are enabled:

- ASP.Net
- Default Document
- Microsoft .NET FrameWork 3.51

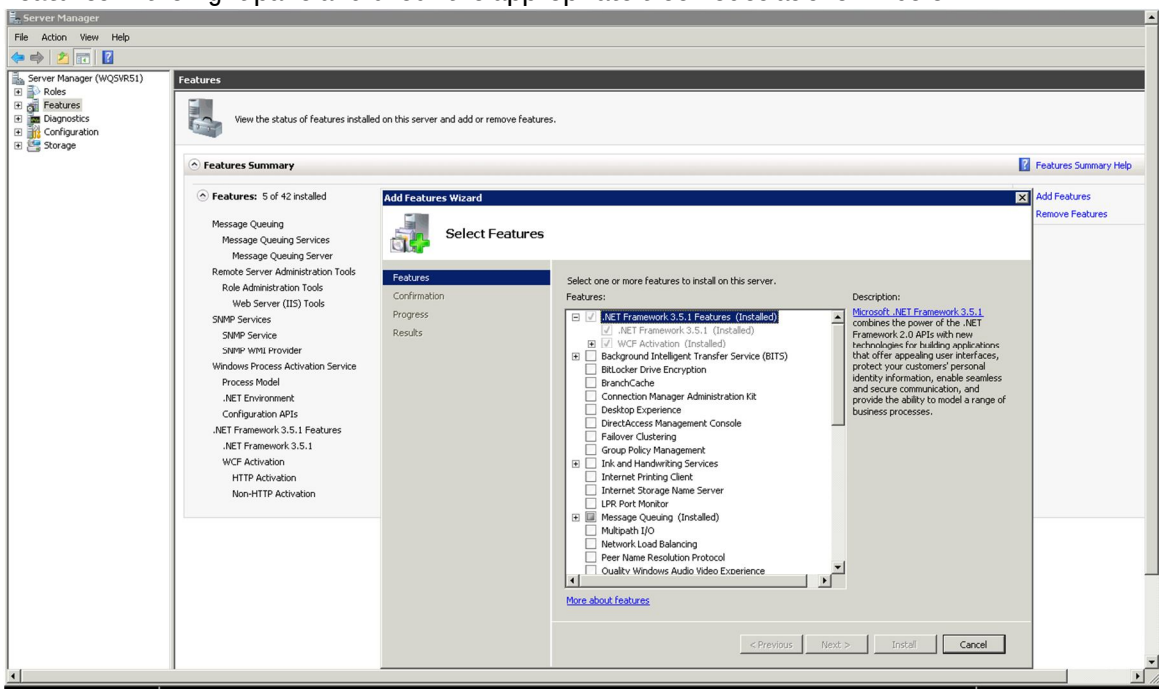
On Windows 7 operating system:

To enable these features open **Control Panel** and click the **Programs and Features icon.** Click the **Turn Windows features on or off** link and check the appropriate tree nodes as shown below:

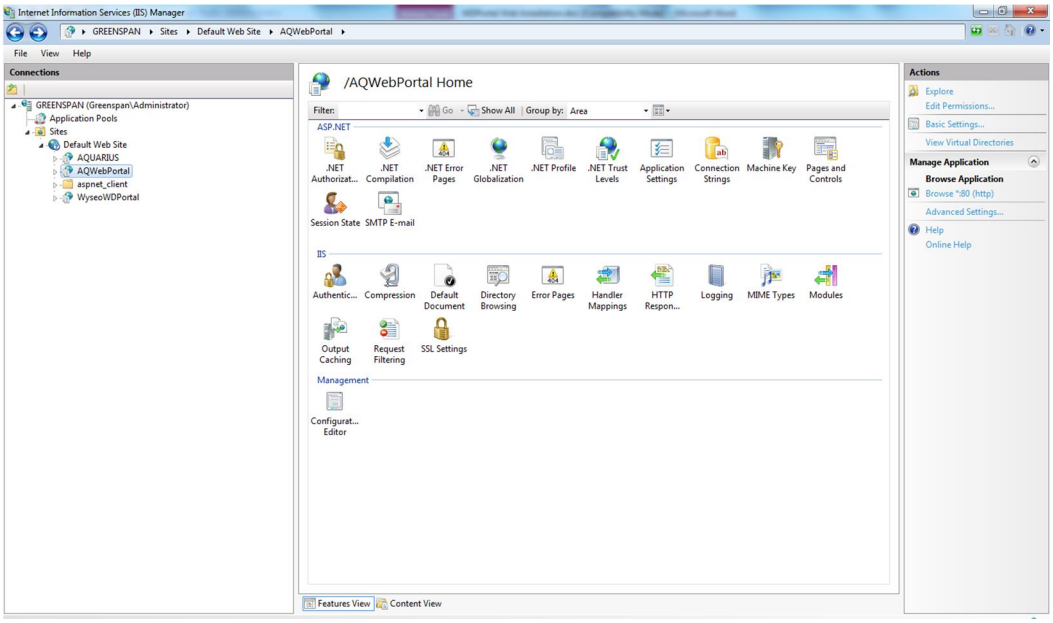


On Windows 2008 server operating system:

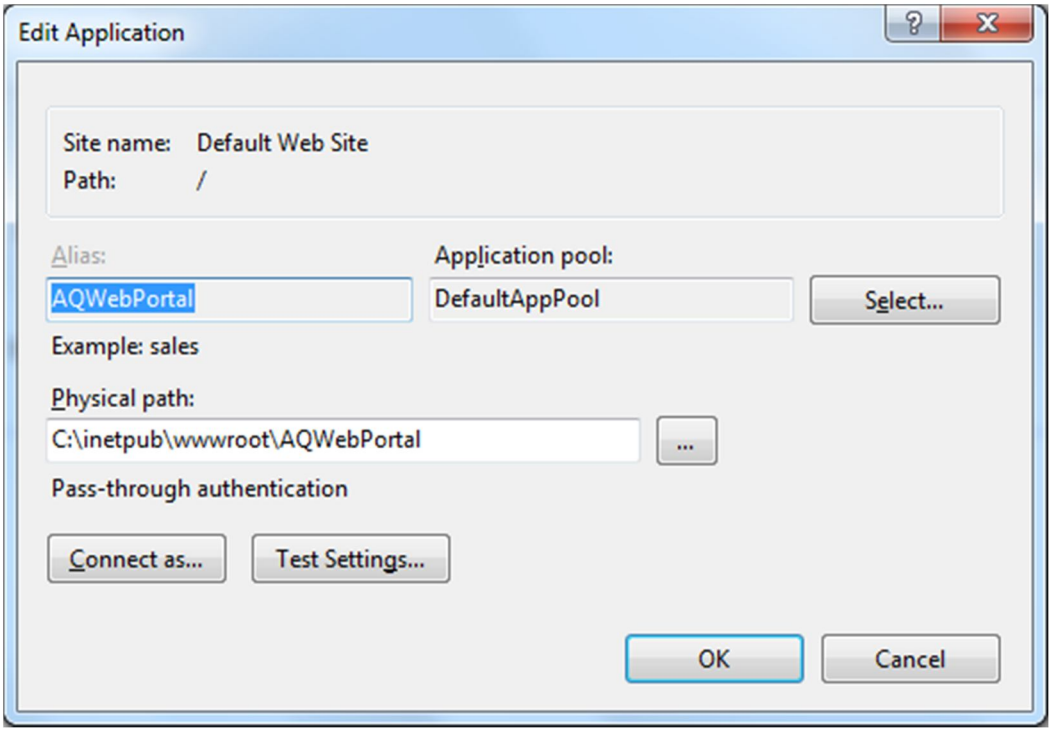
To enable these features open **Server Manager** and click on **Features** in the left pane**.** Click on **Add Features** in the right pane and check the appropriate tree nodes as shown below:



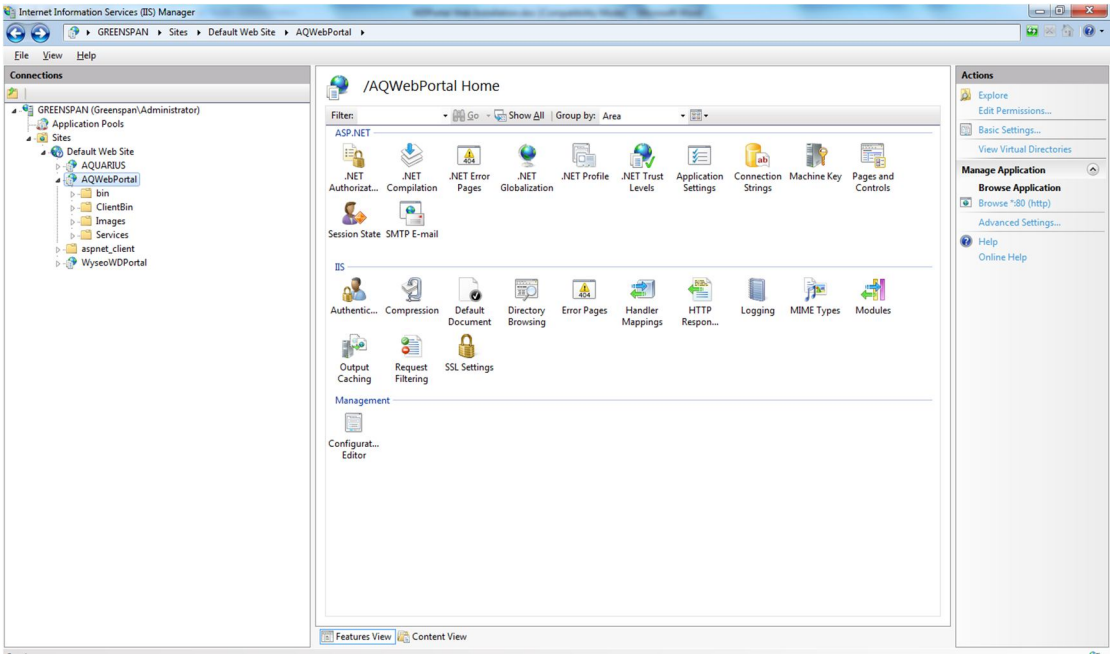
1. Click Ok when finished. Copy the **AQWebPortal** directory and its contents to **C:\Inetpub\wwwroot** on the **Host Server**.
2. Start **Internet Information Services (IIS) Manager** and find the **AQWebPortal** directory by expanding the **Sites** then **Default Web Site** node.



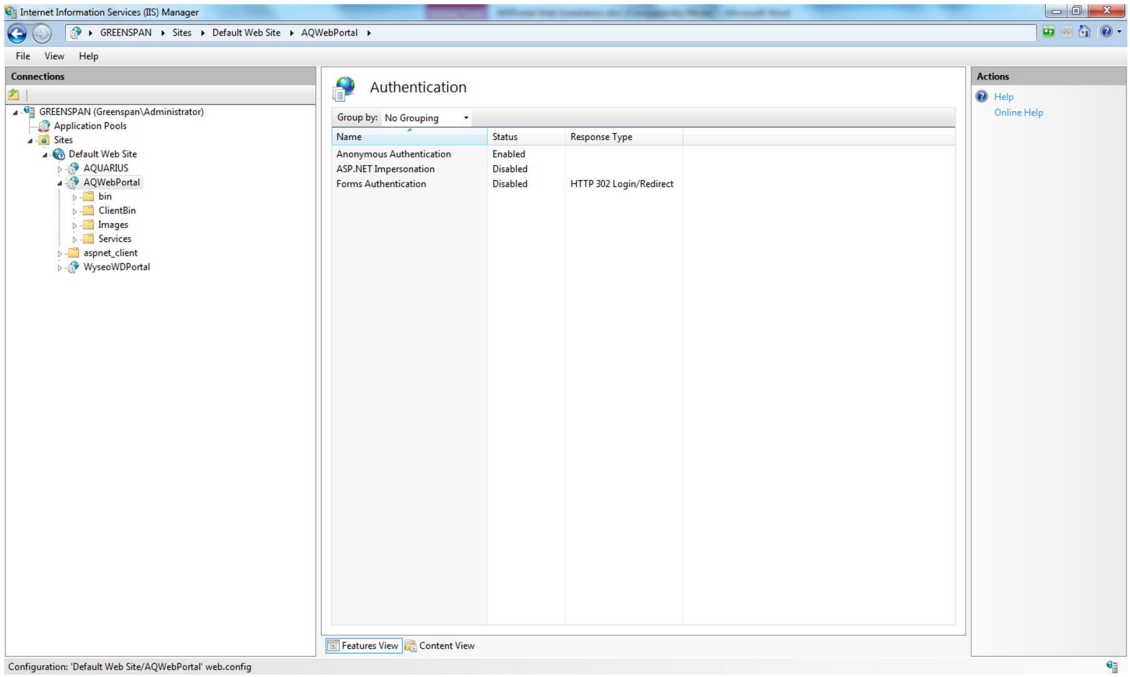
3. Right click the **AQWebPortal** node to activate the context menu and select **Convert to Application** to open the **Add Application** dialog.



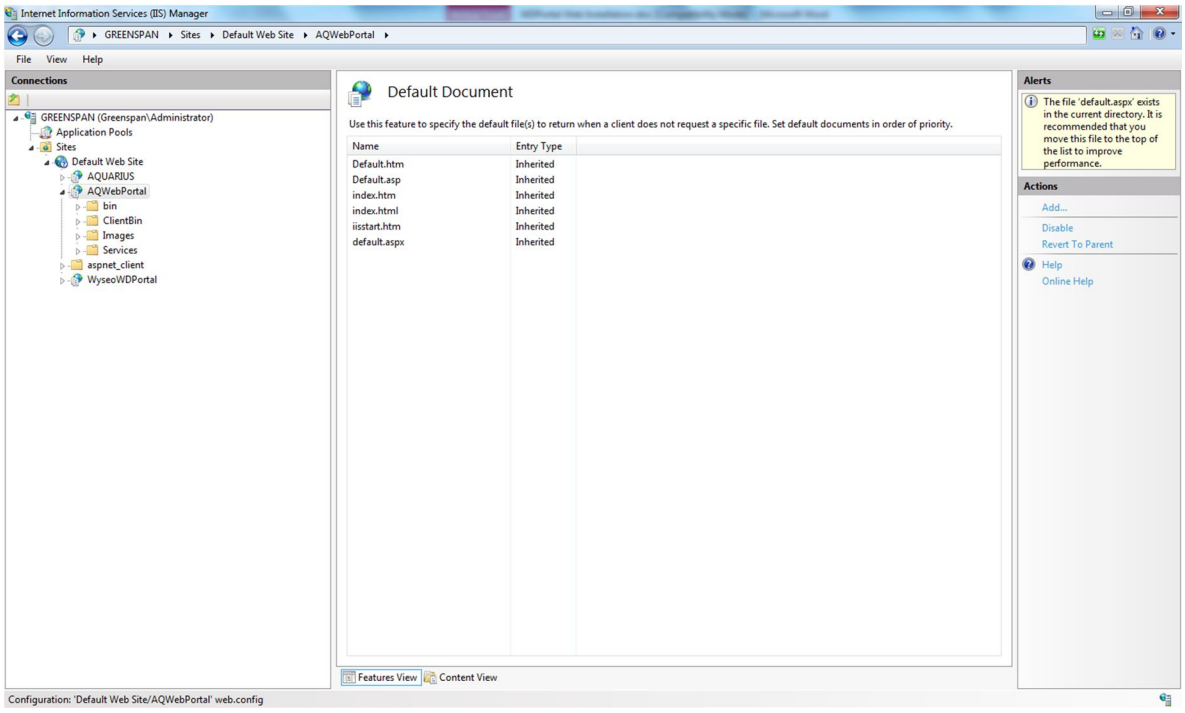
4. Click **OK** to continue. The nodes icon has changed, to show that it is now an application, and appears as follows.



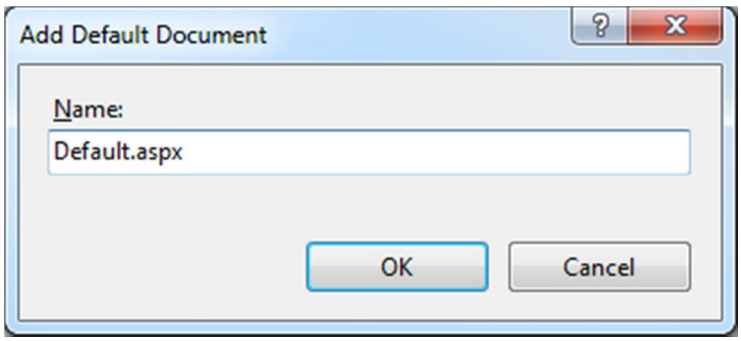
5. The application needs to be configured to function correctly. Double click the **Authentication** icon located in the middle panel in the **IIS group**. Ensure **Anonymous Authentication** is **Enabled** as shown below:



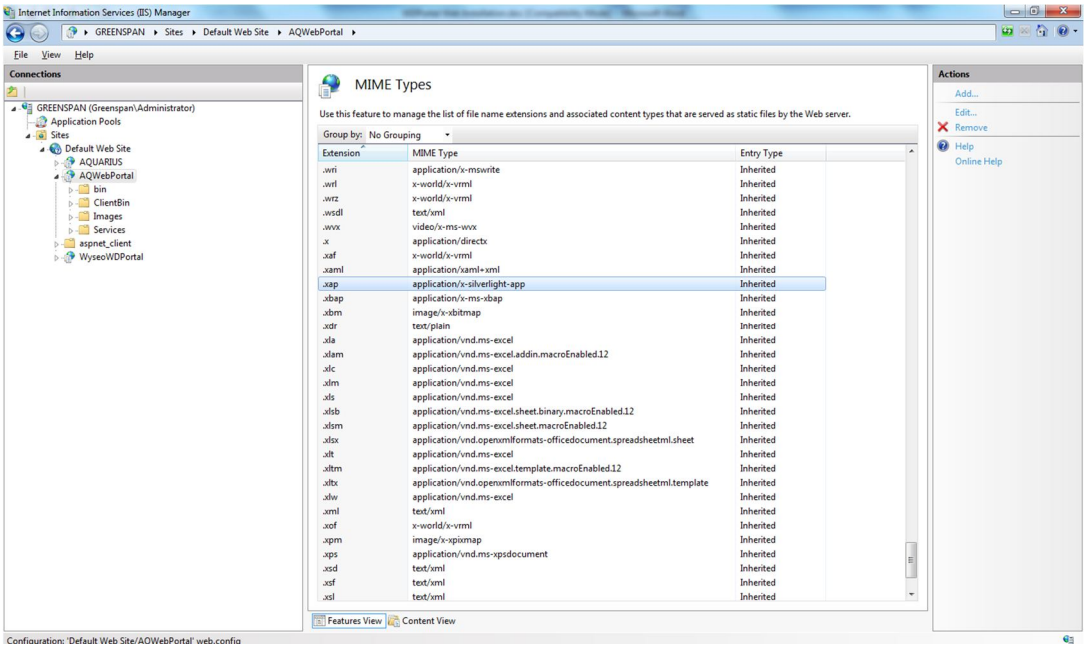
6. Either click the back button or click the **AQWebPortal** node in the tree view to return to **/ AQWebPortal Home.** Double click the **Default Document** icon.



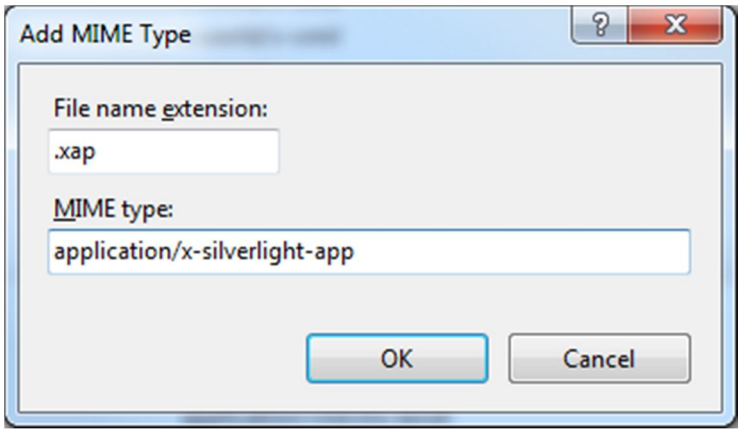
7. Remove the current set of default documents by selecting each document and clicking the **remove** button. Click the add button to open the **Add Default Document** dialog and enter **Default.aspx** and click **Ok**.



8. Return to **/ AQWebPortal Home** by either clicking the back button or by clicking the **AQWebPortal** node in the tree view**.** Double click the **MIME Types** icon to manage the list of file name extensions and content type for this web site. In the **Extension** column ensure the .**xap** file extension exists as shown below:



9. If the .**xap** extension does not exist click the **add**... link to open the **Add MIME Type** dialog and enter .**xap** as the **File name extension** and **application/x-silverlight-app** as the **MIME Type** shown below:



10. Click OK. Return to **/ AQWebPortal Home**. The application has now been configured and is ready for testing.

Web.Config Settings

1. Locate and open the web.config file located in the **AQWebPortal** folder. Modify the **Aquarius** connection string appropriately:

```
<connectionStrings>
   <add name="Aquarius"
      connectionString="Provider=SQLOLEDB.1;Password=AQWebPortal;Persist
Security Info=True;User ID= AQWebPortal;Initial Catalog=Aquarius;Data
Source=192.168.100.200"
      providerName="System.Data.OleDb"/>
</connectionStrings>
```

The example above configures the Aquarius connection string to an SQL Server database called Aquarius on a server with an IP address of 192.168.100.200 (a DNS name can also be used) connecting with a user name and password of **AQWebPortal**.

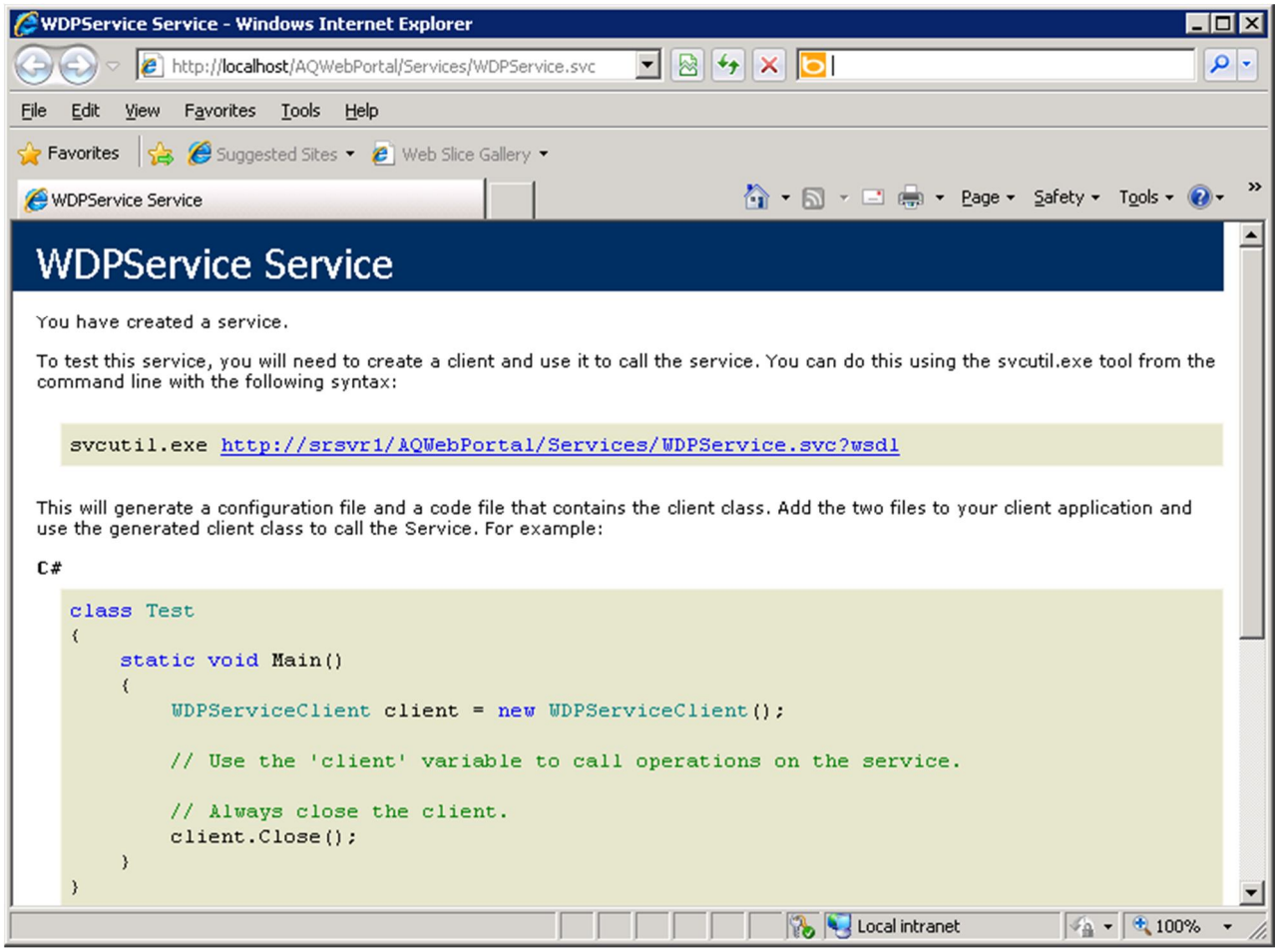
2. In web.config modify Aquarius WebService endpoint address:

```
<system.serviceModel>
      <client>
            <endpoint
            address=http://localhost/AQUARIUS/Publish/AquariusPublishService.svc binding="basicHttpBinding"
            bindingConfiguration="BasicHttpBinding_IAquariusPublishService" contract="AQPService.IAquariusPublishService"
            name="BasicHttpBinding_IAquariusPublishService" />
      </client>
```

The above example configures Aquarius WebService endpoint address to "**localhost**".

Testing the installation

To test that the AQWebPortal web service is reachable you need to navigate to: **http://localhost/AQWebPortal/Services/WDPService.svc** on your server. If the service is operating correctly your internet explorer page should resemble the screenshot below:



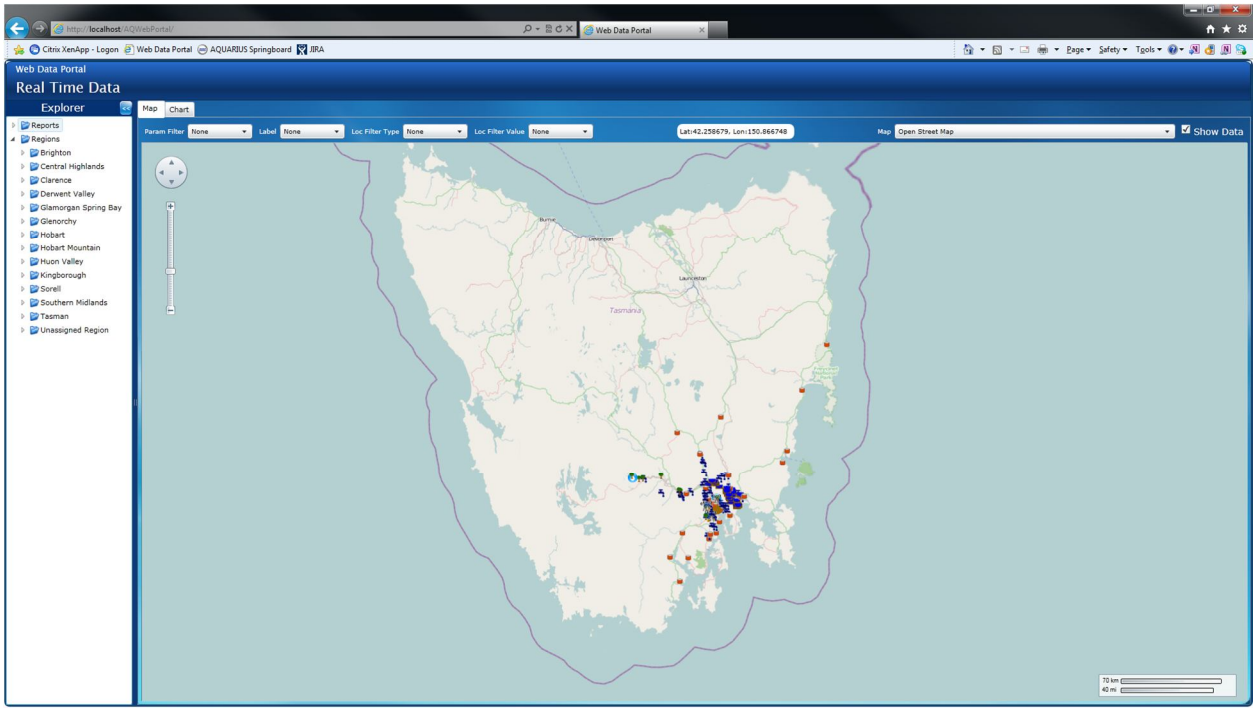
Client Installation

Start the application on a client pc by opening internet explorer and navigating to **http://{Host Server}/AQWebPortal.**

Note: The application will not function without the Silverlight runtime. If not installed your browser will prompt you to install with the following message:

Click the **Install Microsoft Silverlight** image to proceed with the installation. Otherwise download the silverlight runtime (4.7 mb) from Microsoft and install manually.

After successful installation refresh your internet explorer page or re-enter the original url. The application will appear as follows:



Customising Heading

Change Heading Text

To change the text displayed in AQWebPortal's heading open in a text editor Default.aspx located on the server.

Locate the initParams attribute section shown below:

```
   <param name="initParams" value="Header.Show=true,Header.Line1=Water Data Portal,Header.Line2=Real Time Data" />
```

Edit the InitParameters attribute highlighted above to change the heading.

Header.Show	Shows/Hides the Heading bar. You wish to disable the header and add your own.
Header.Line1	First heading.
Header.Line2	Second heading. A larger fixed font is used.

Add Logos to the heading bar.

Copy the appropriate image (jpg/gif/png/bmp format) to the images folder located in the WDPortal virtual directory on the server.

Edit the **AQSettings**_ table in aquarius database and locate the following entries in the **label**_ column:

Header.Logo.Left.FileName

Header.Logo.Right.FileName

Enter the file name including extension and excluding the folder path into the **settingValue**_ field. Only one image can be placed either to the left or right in the heading bar.

Updating GlobalSetting Table

In SQL Server

Start Microsoft SQL Server Management Studio and open script "GlobalSetting_Script_SQLServer.sql" from C:\inetpub\wwwroot\AQWebPortal\Documents folder. Select database on which you have connected AQWebPortal and execute the script by clicking on "Execute" button in Microsoft SQL Server Management Studio.

Oracle

Start Oracle SQL Developer and connect to Aquarius database. Go to "File" menu in SQL Developer and open script "GlobalSetting_Script_Oracle.sql" from C:\inetpub\wwwroot\AQWebPortal\Documents folder. Execute the SQL script by clicking on "Run Script" button.

GlobalSetting Table details

Setting Key	Default Setting Value	Description
Chart.SliderDefault	3D	Default value for chart slider (3 days)
Chart.SliderDefault.Continuous	3D	Default value for chart slider continuous data (3 days)
Chart.SliderDefault.Discrete	90D	Default value for chart slider discrete data (90 days)
Chart.SliderPeriods.Continuous	3H, 12H, 1D, 3D, 10D, 365D, ALL	Buttons to show fixed slider period in chart for continuous data (H-Hours, D-Days)
Chart.SliderPeriods.Discrete	30D,90D, 365D,3000D,ALL	Buttons to show fixed

		slider period in chart for discrete data (H-Hours, D-Days)
Header.Logo.Left.FileName	Aquarius.jpg	Photograph logo shown on the top left corner of the portal.
Header.Logo.Right.FileName		Photograph logo shown on the top right corner of the portal.
Image.LocationType.<LocTypeID>	Image1.png	Image icons for Location Type based on LocTypeID. For more details see Icons for Location Type
Location Label	Loc ID:[Location_.Identifier_], Loc Name:[Location_.Identifier_]-[Site_.Label_]/[Location_.Label_])	Default list of labels shown in Label dropdown for map.
LocationName	[Location.LocationName]	To get Location name as shown in portal tree.
LocationSiteAliasName	Location	Name as shown in chart grid for location.
Map.DefaultCentre	147.45,-41.65	Default centre position on map when portal loads for the first time.
Map.DefaultMapSource	OpenStreetMapSource	Default map source.
Map.MapSource.OpenStreetMapSource	Open Street Map,6,14.0,True	Default map source setting for Open street map.
Map.MapSource.VirtualEarthAerialSource	Virtual Earth Aerial,8.0,16.0,True	Default map source setting for Virtual earth aerial.
Map.MapSource.VirtualEarthHybridSource	Virtual Earth Hybrid,8.0,14.0,True	Default map source setting for Virtual earth Hybrid.
Map.MapSource.VirtualEarthRoadSource	Virtual Earth Road,6.0,16.0,True	Default map source setting for Virtual earth road.

Location_Extension	False	Default value for Location_Extension table
SeriesRetrievalLimit.Continuous	750D	Default series retrieval limit for continuous data from Aquarius in number of day.
TimeSeries Label	StartValue:[AQAtom_TimeSeries_.startValue_], EndValue:[AQAtom_TimeSeries_.endValue_], StartTime:[AQAtom_TimeSeries_.StartTime_], EndTime:[AQAtom_TimeSeries_.EndTime_], Minimum:[AQAtom_TimeSeries_.min_], Maximum:[AQAtom_TimeSeries_.max_], Mean:[AQAtom_TimeSeries_.mean_], Total Samples:[AQAtom_TimeSeries_.totalSamples_]	List of labels added to existing dropdown list of Label dropdown for map when parameter filter is selected.
TimeSeriesFilter		SQL query to filter Time-Series (see ***Filter Time-Series*** page 24)

Icons for Location Type

We can have different icon for each Location Type. The process of adding a new icon for any location type is simple. We should have a pair of icons for each location type (first would be shown when location is not selected and second when we select a location as shown below example).

Unselected image.	Selected image.

The name of the unselected image should be added by “underscore(_)” to make it as selected. For instance, in the above example if the name of unselected image is “Image.png”, then the name of selected icon image should be “Image_.png”. Put these images under %root%\AQWebPortal\Images.

We need to run insert SQL query for each location type with image name, as shown below:

For SQL Server:

```
insert into GlobalSetting values ('AQWebPortal',
'Image.LocationType.<LocTypeID>', SYSDATETIME(), 'Image.png', 0, null)
```

For Oracle:

```
insert into GlobalSetting values ('AQWebPortal',
'Image.LocationType.<LocTypeID>', SYSDATE, 'Image.png', 0, null)
```

Here "<LocTypeID>" is LocationTypeID from LocationType table, for which you want to want to change image.

Server side event logging configuration

AQWebPortal supports two types of logging – **Text file logs** and **Windows event logs**.

To enable logging for AQWebPortal, open Web.Config file and set the value of "EnableLogging" property to True as shown below:

```
<applicationSettings>
  <WDPortal.Web.Properties.Settings>
   <setting name="ConnectionSettings" serializeAs="String">
    <value>UserName=admin; Password=admin</value>
   </setting>
   <setting name="EnableLogging" serializeAs="String">
    <value>True</value>
   </setting>
  </WDPortal.Web.Properties.Settings>
</applicationSettings>
```

You can view log file from %root%\AQWebPortal\Logs folder.

Note: Logging is always enabled for errors. So log file will be created under AQWebPortal\Logs folder if there is any error.

Text File Logs:

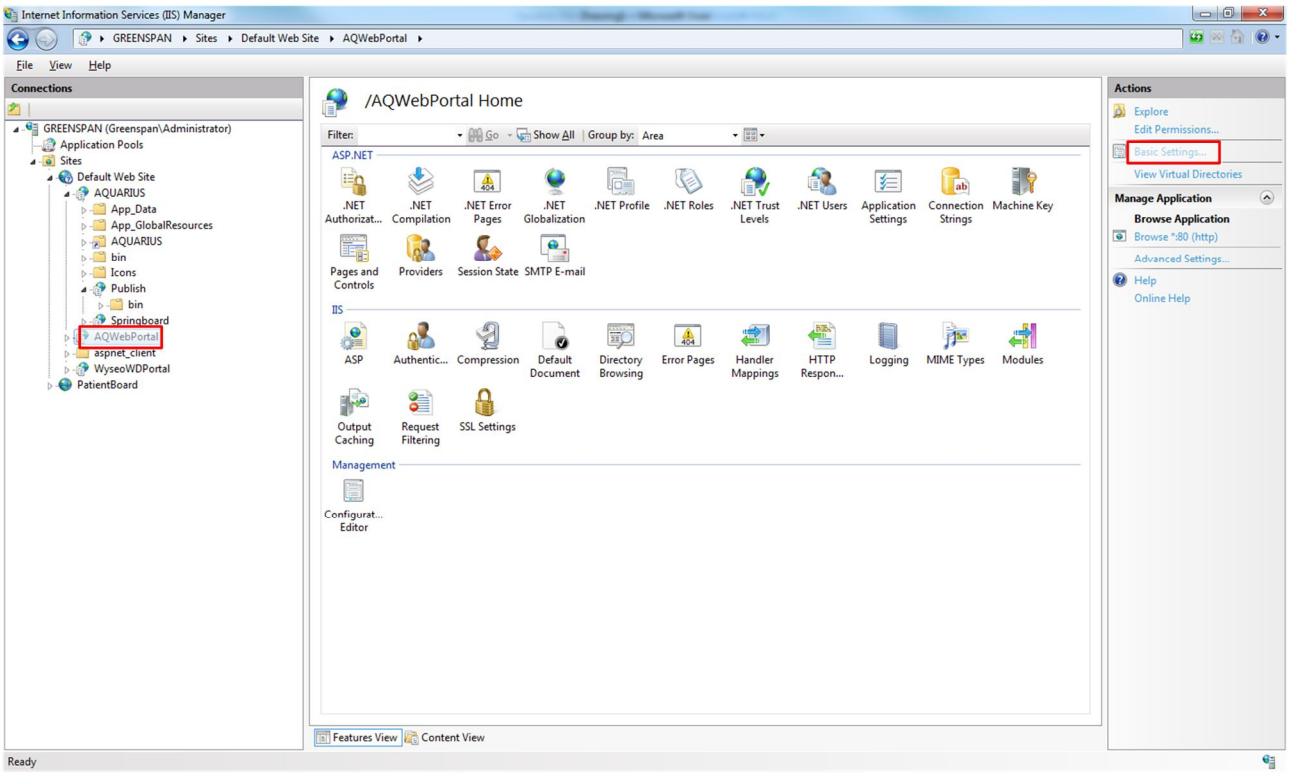
Text file logs are written under %root%/AQWebPortal/Logs folder on the AQWebPortal host computer.

Writing of text file logs requires that the AQWebPortal service has sufficient permissions to write this folder. Log files would not be created if the AQWebPortal service does not have required permissions.

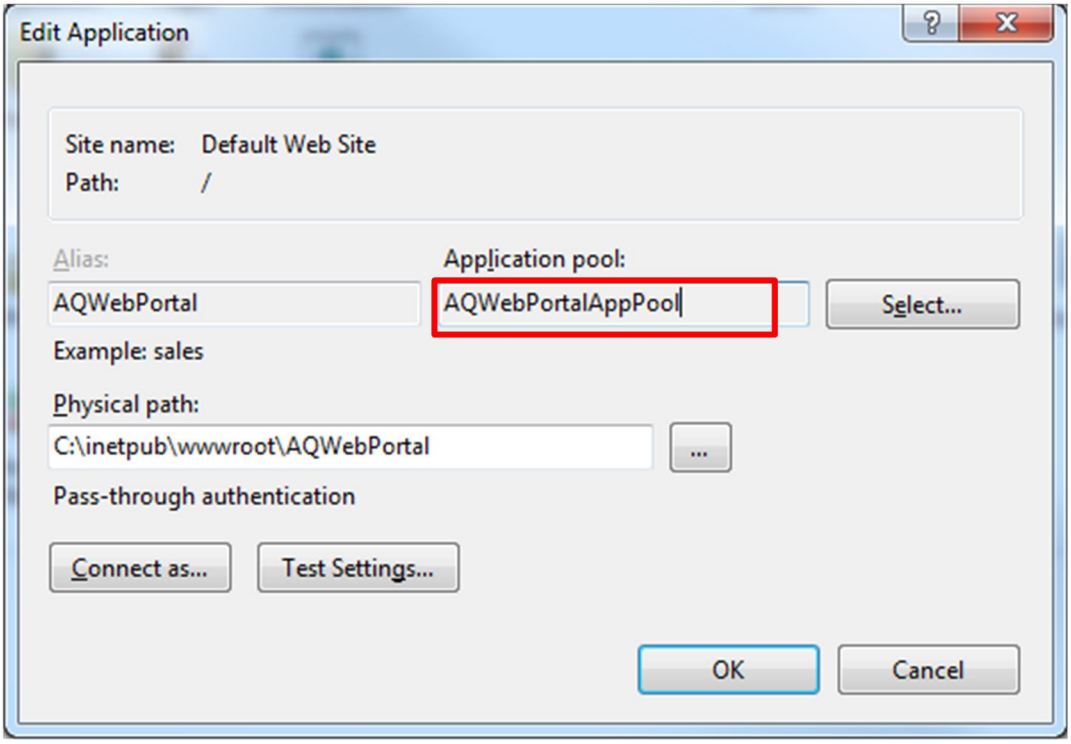
To set up required log file permissions you need to follow the procedure below:

1. Open Internet Information Services (IIS)Manager by going to Control Panel → Administrative Tools → Internet Information Services (IIS)Manager and click on AQWebPortal in the left hand tree under

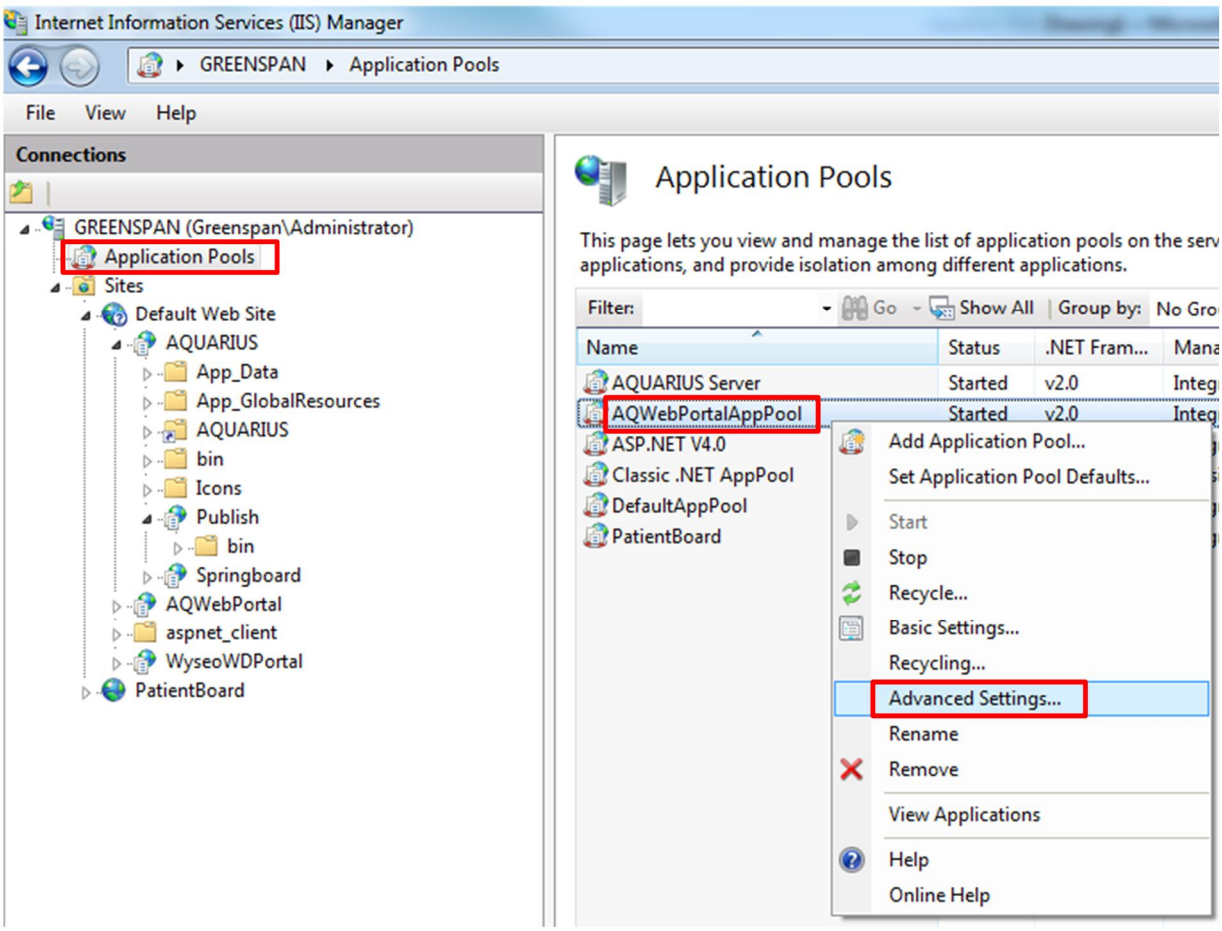
Connections pane, and click on Basic Settings... on the right hand side under Actions pane:



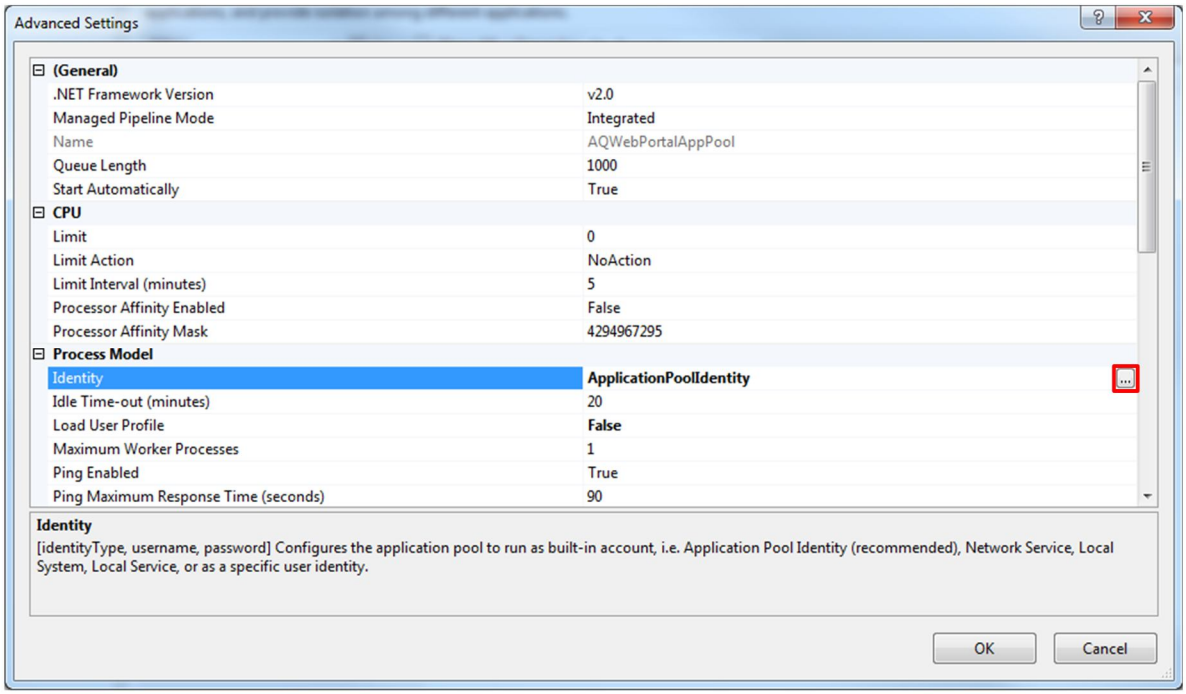
2. Verify the Application Pool name in Basic Settings window (in below screen shot example it is AQWebPortalAppPool):



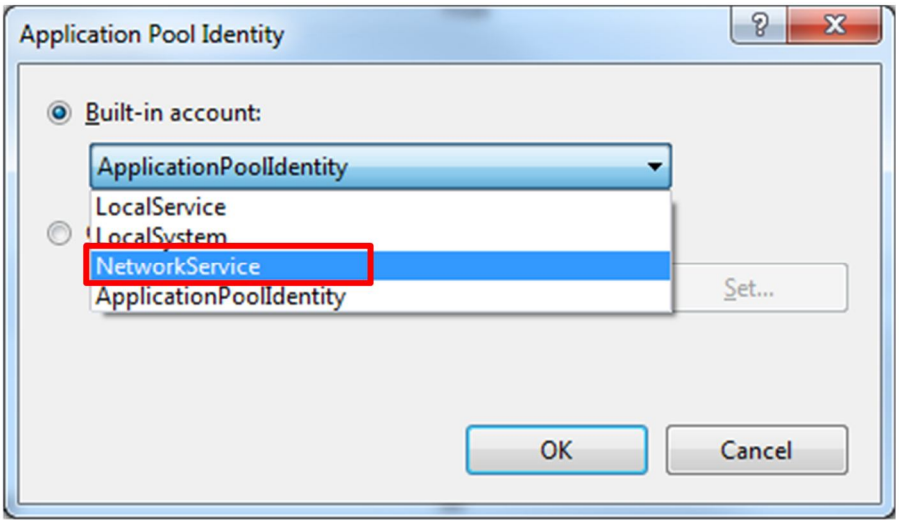
3. Click on Application Pools on the left hand tree under Connections pane. Right click on the application pool which we have assigned to AQWebPortal (refer step 2 to find application pool for AQWebPortal):



4. In Advanced Settings window select Identity under Process Model pane and open Application Pool Identity window:



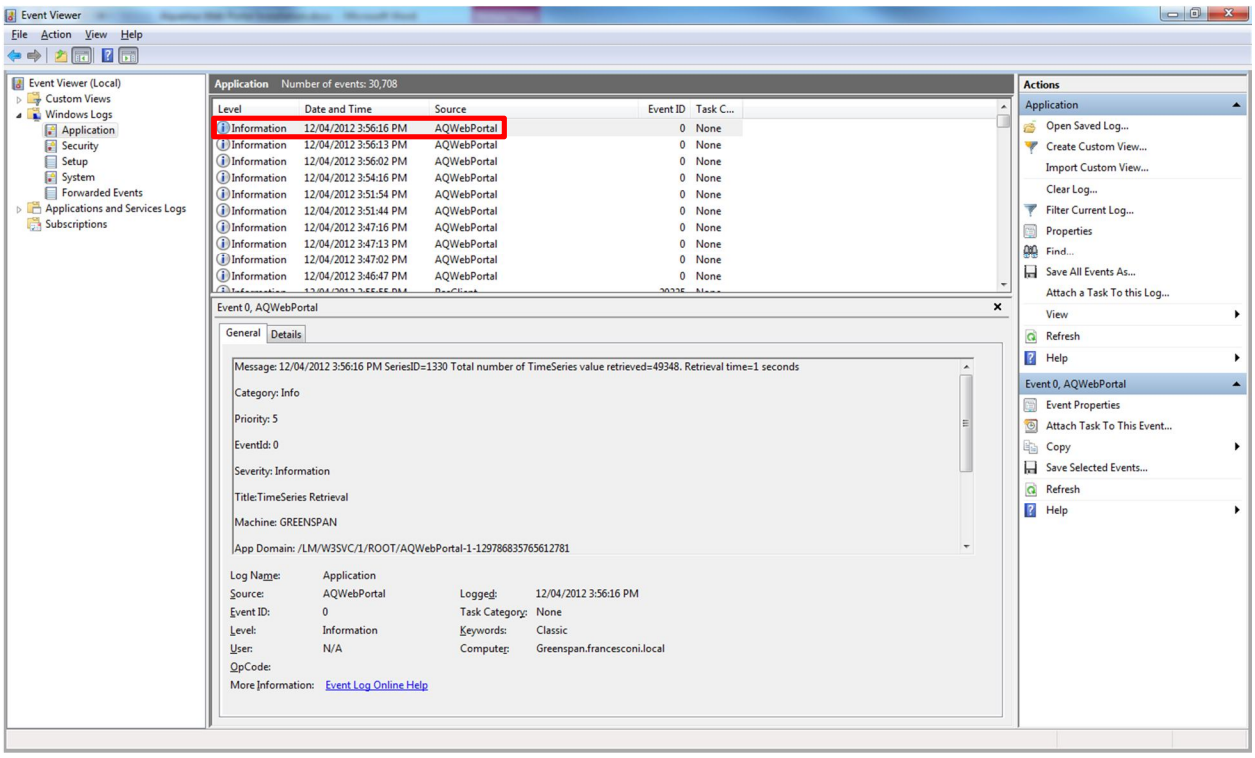
5. Make sure Build-in account is “NetworkService” (if it is not the selected one then select it from the dropdown as shown below):



Windows Event Logs:

AQWebPortal events logged to the windows event log may be viewed as follows:

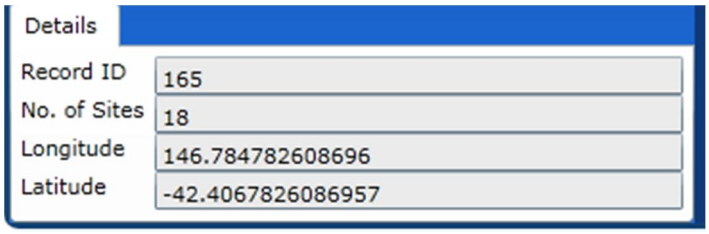
1. Start Control Panel
2. Select Administrative Tools
3. Select Event Viewer
4. Select Windows Logs/Application and look for events having Source = AQWebPortal, as shown below:



Properties Panel

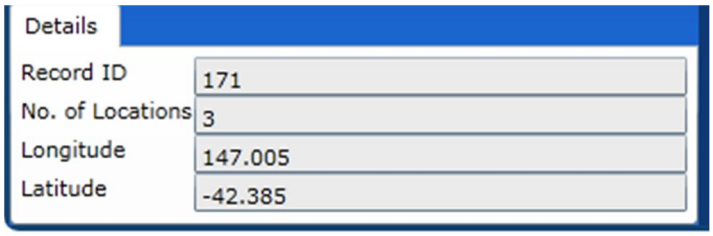
We can view properties of Region, Site, Location and TimeSeries data at the bottom left hand side of the tree in AQWebPortal. Properties panel displays information about the selected node in the tree.

Properties panel for Region:



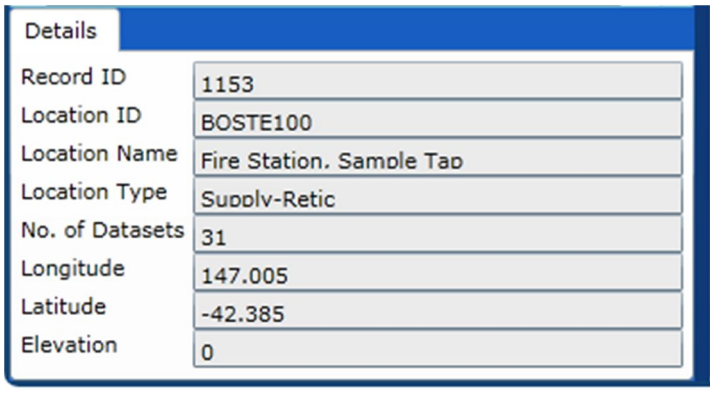
Where Record ID refers to unique region ID in the database, Number of sites refers to total number of sites under the selected region in the tree.

Properties panel for Site:



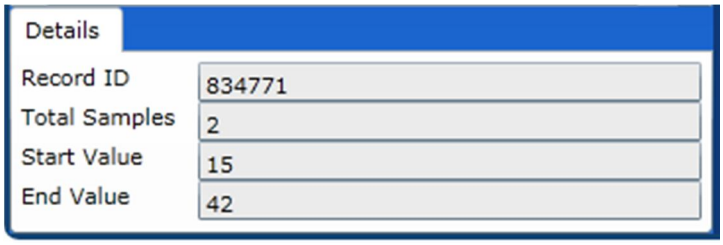
Where Record ID refers to unique site ID in the database, Number of Locations refers to total number of locations under the selected site in the tree.

Properties panel for Location:



Where Record ID refers to unique location ID in the database, Location ID refers to unique Identifier and Number of DataSets refers to total number of datasets under the selected location in the tree.

Properties panel for Dataset:



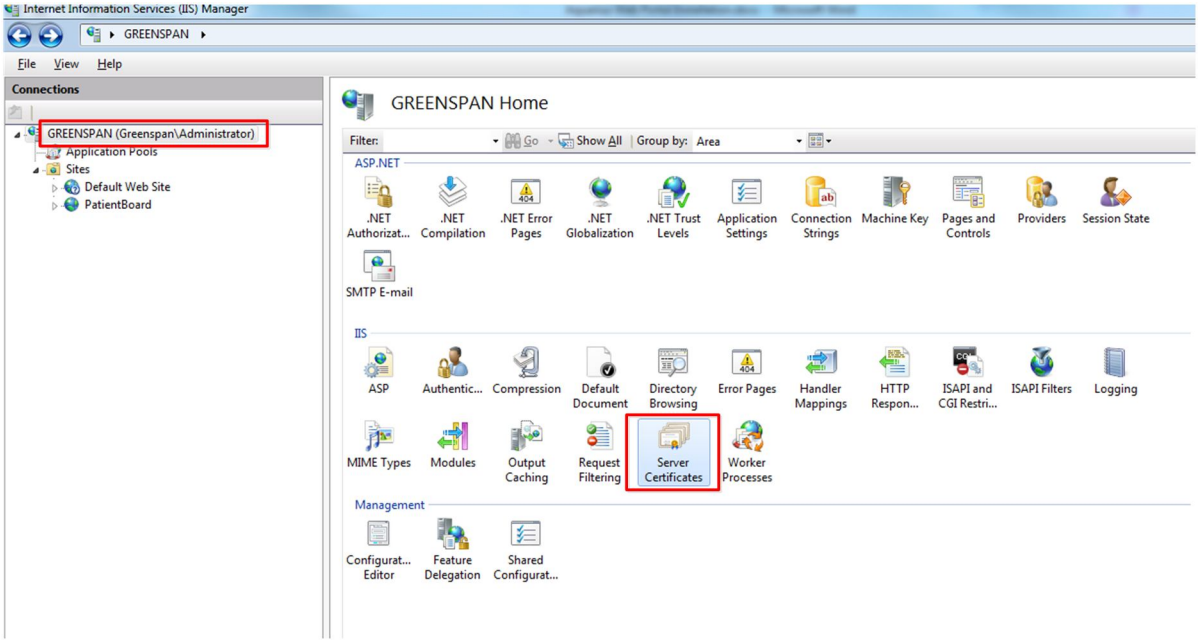
Where Record ID refers to unique dataset ID in the database for the selected TimeSeries in the tree.

SSL Setting

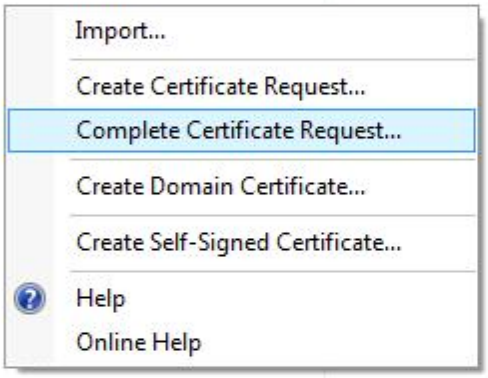
SSL certificate needs to be purchase by the user to get AQWebPortal working in secure mode (https).

Attaching SSL certificate in IIS manager:

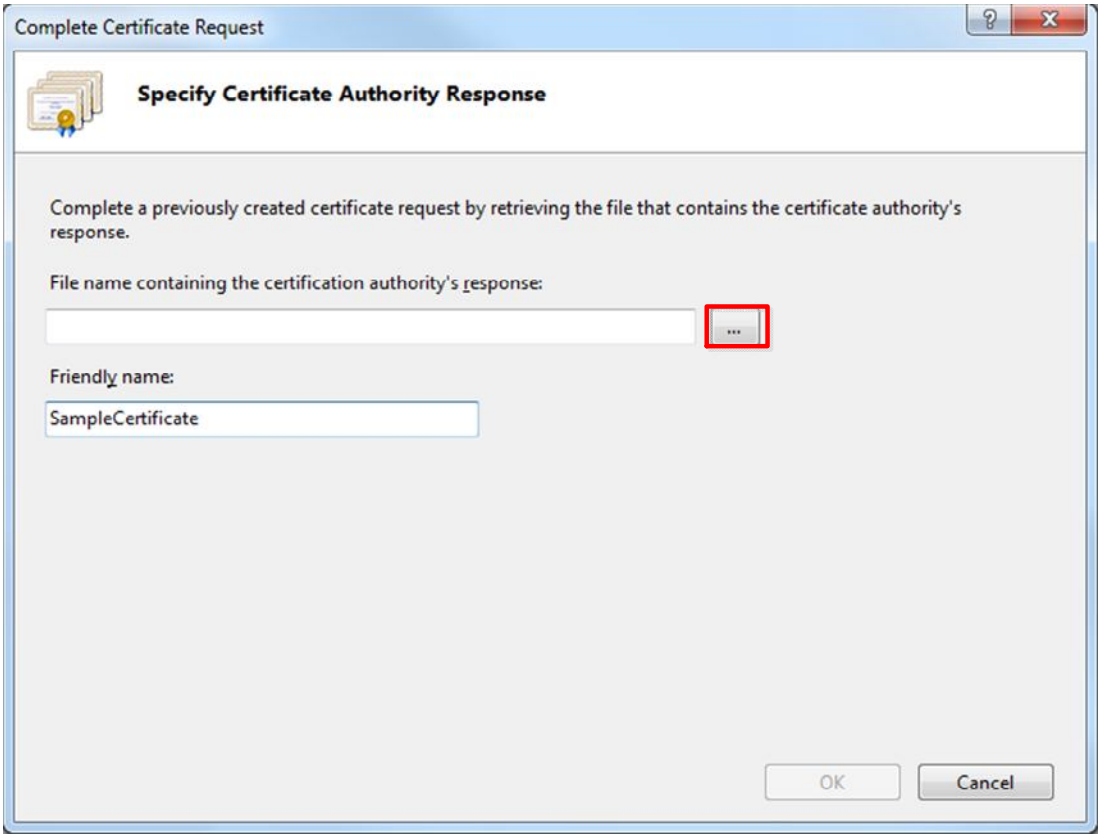
1. Open IIS manager (Control Panel → Administrative Tools → Internet Information Services (IIS) Manager).
2. Select the root folder and open Server Certificates by double clicking on “Server Certificates”.



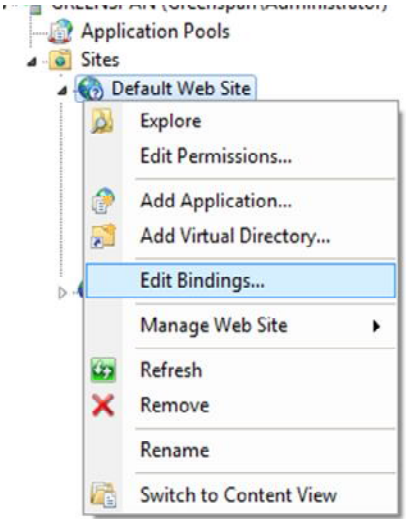
3. In “Server Certificates” right click and choose Complete Certificate Request..



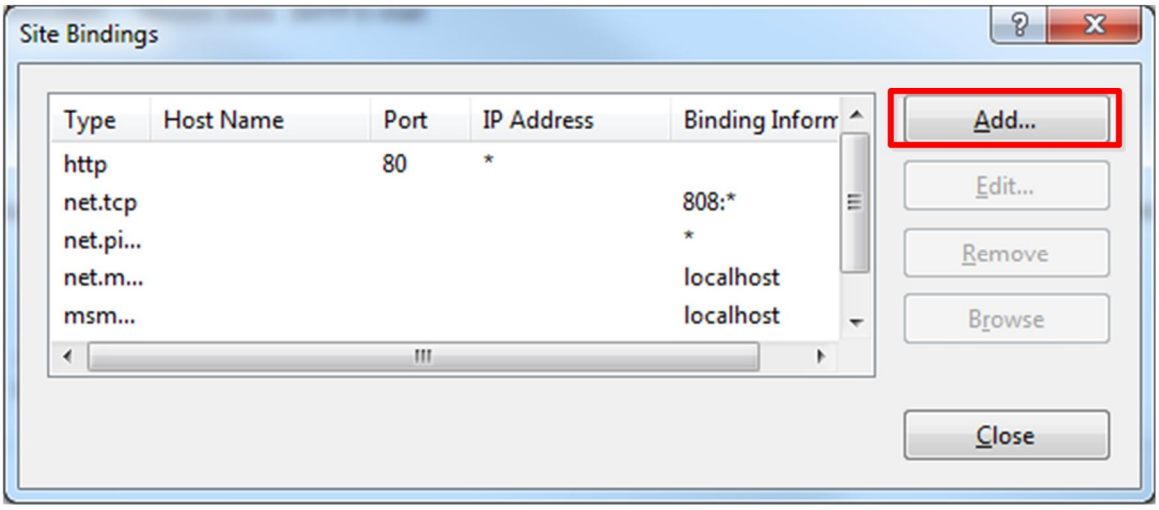
4. Select the certificate you have purchased in the “Complete Certificate Request” window and give it a friendly name (for e.g. SampleCertificate given below)



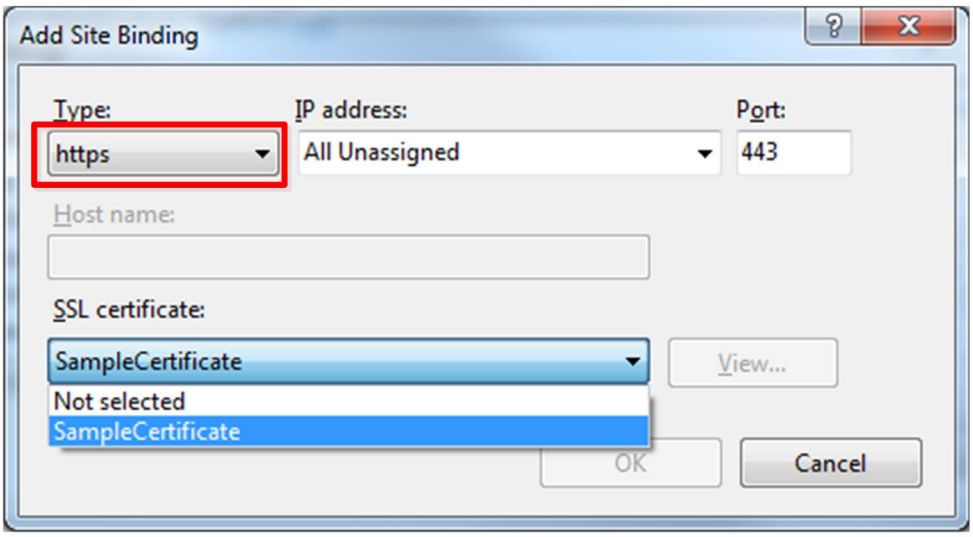
5. Right click on Default Web Site and click on Edit Bindings...



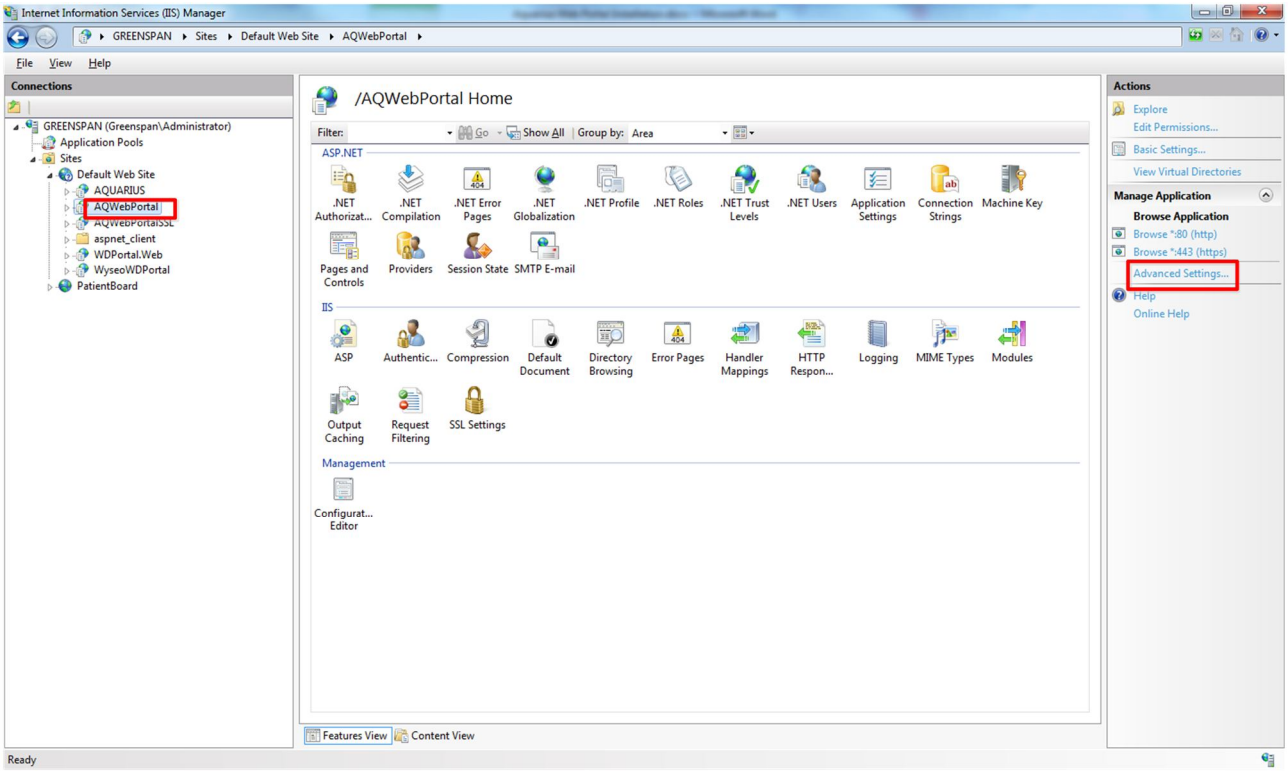
6. In Site Bindings window check if “https” type already exists. If it is not in the type list then add “https” binding by click on “Add” button



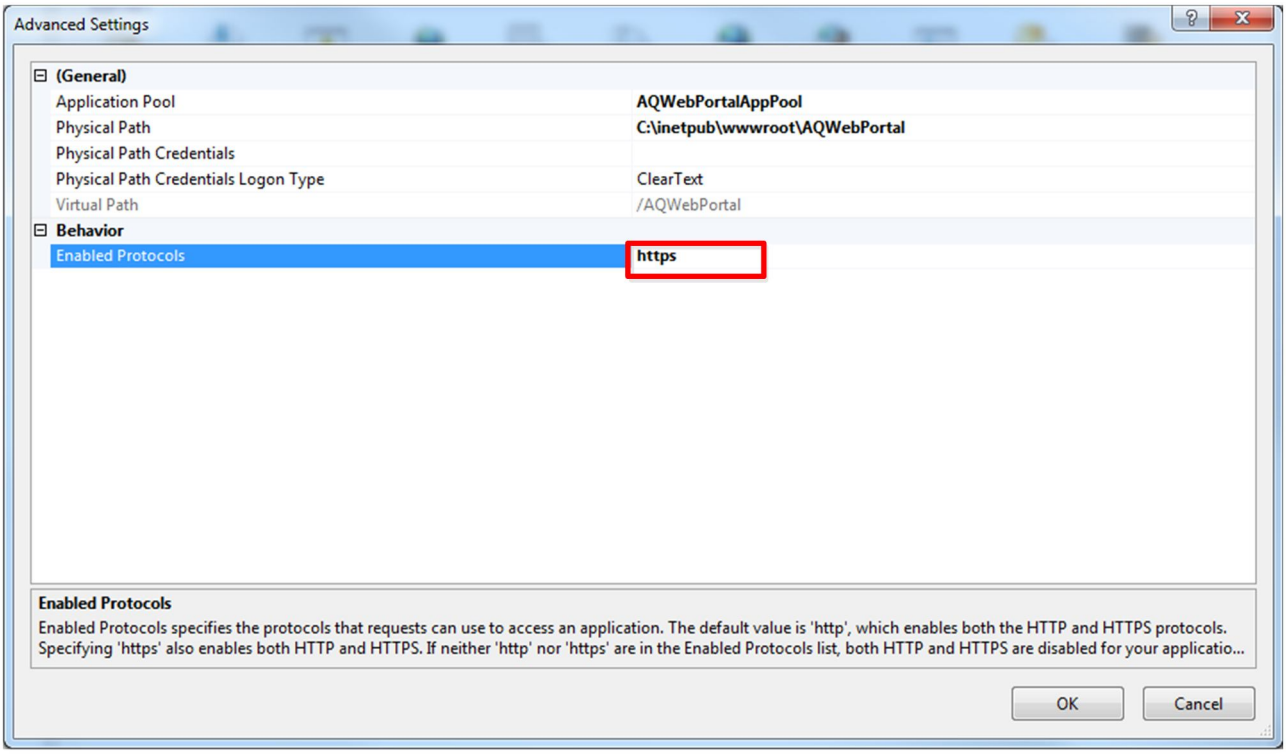
7. In Add Site Binding window select “https” type from the dropdown list and also select SSL certificate you have add in the Server certificate section (SampleCertificate in our example). Click OK.



8. Select AQWebPortal in the left tree and click on “Advance Settings..” in the right pane



9. In Advance Settings window change Enabled Protocols to “https” and click OK.

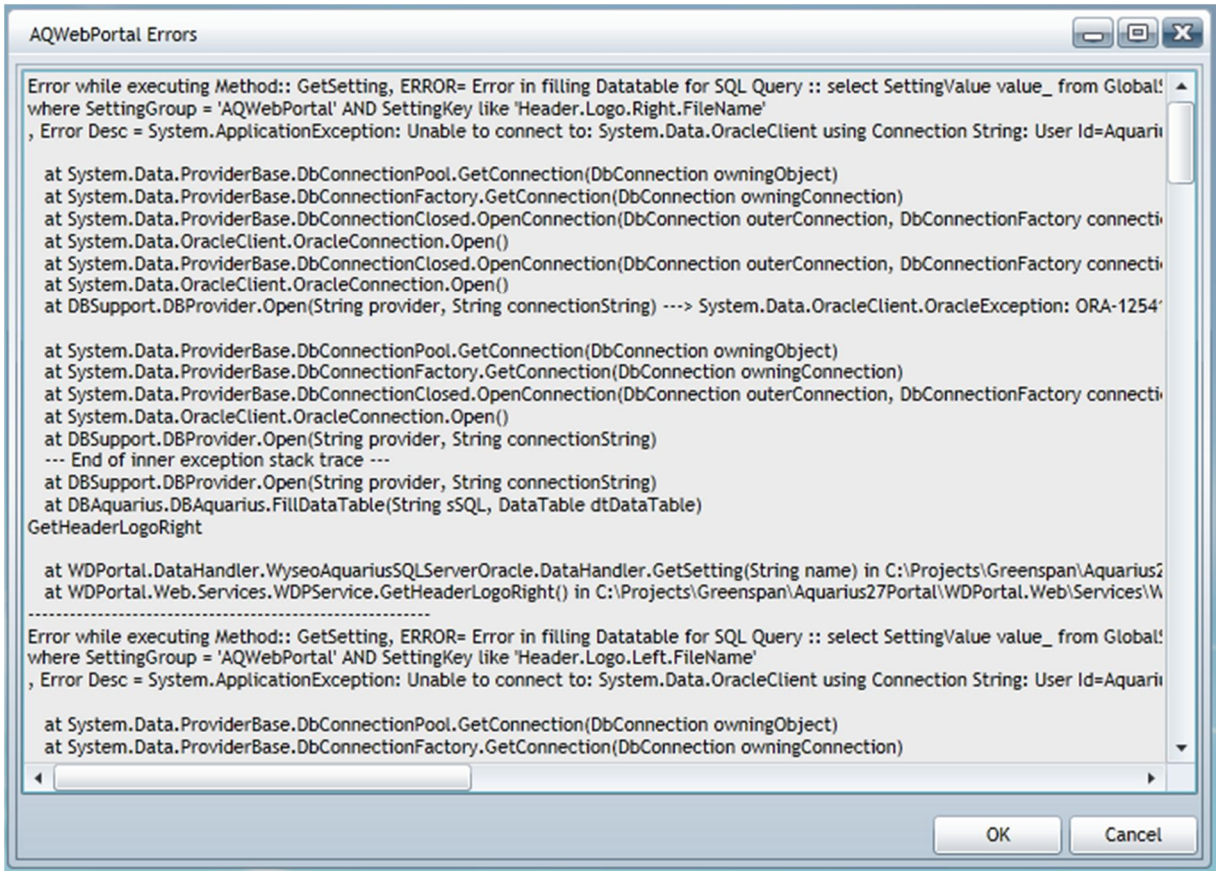


Open Web.Config file in the root \AQWebPortal folder and make sure that “httpsTransport” setting is enabled in “customBinding” section as below:

```
<customBinding>
 <binding name="customBind" closeTimeout="00:02:00" openTimeout="00:02:00"
  receiveTimeout="00:02:00" sendTimeout="00:02:00">
  <binaryMessageEncoding />
   <!--<httpTransport/>-->
   <httpsTransport/>
 </binding>
</customBinding>
```

Error Messages

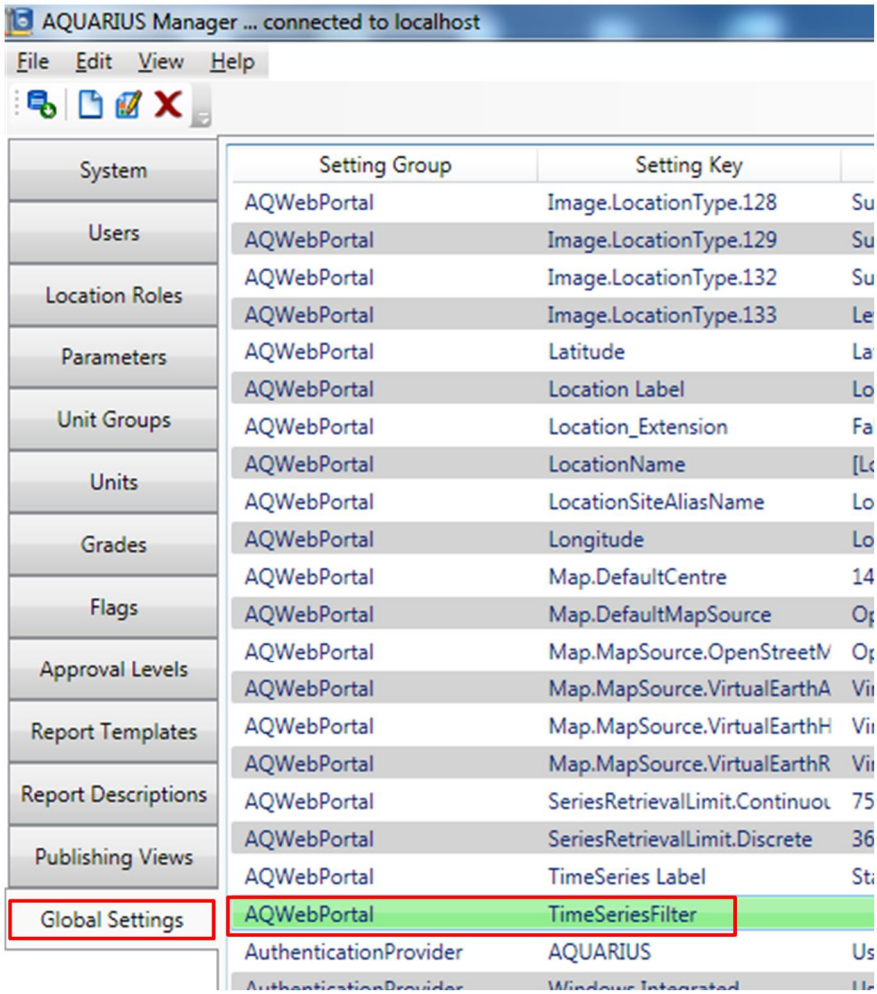
Now Web Portal supports detailed error messaging. For example, if there is an error while connecting with database at server end then following error message (with call stack) will be shown as below:



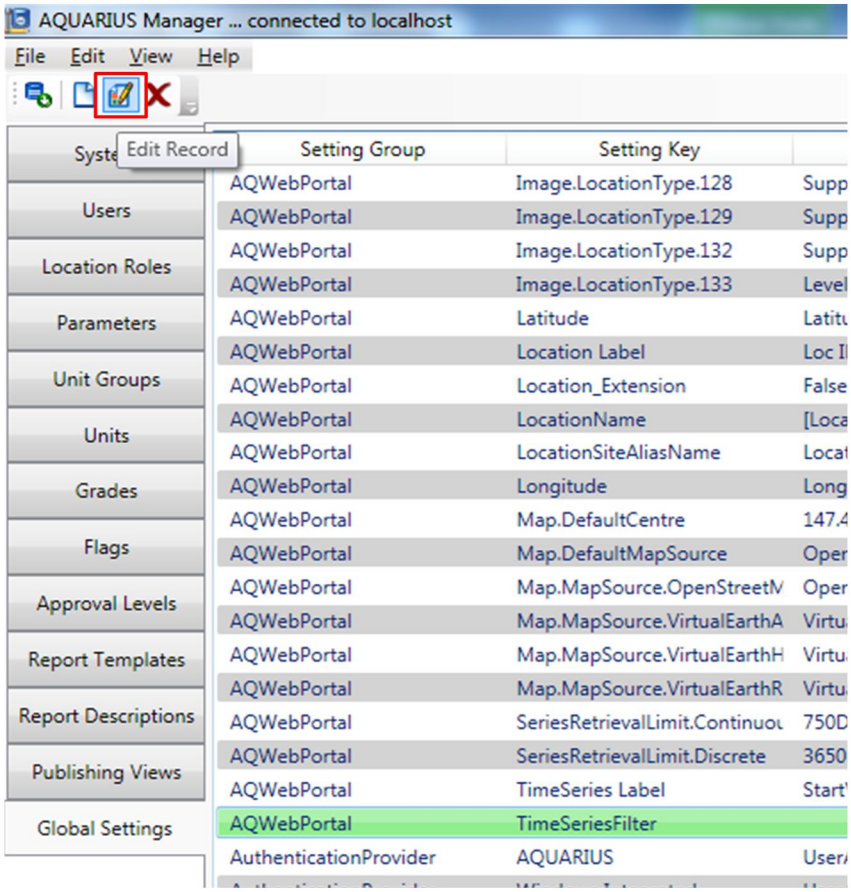
Filter Time-Series

We can filter Web Portal by Time-Series. There is a setting “TimeSeriesFilter” in GlobalSetting table under setting group “AQWebPortal” where you can insert conditional SQL statement for filtering Time-Series, as shown in below example:

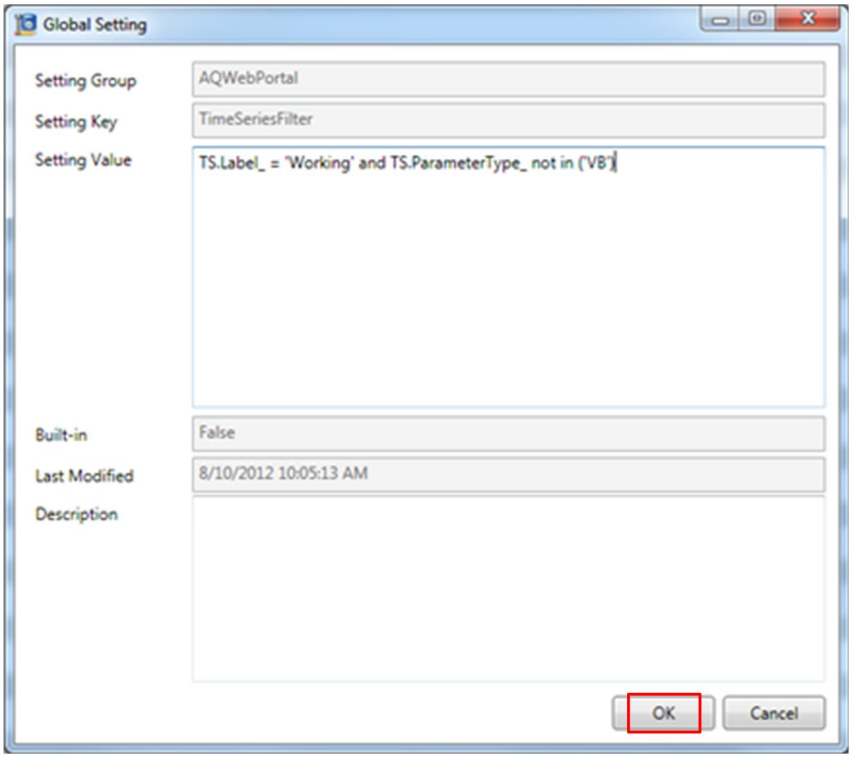
Here we are filtering Web Portal results where Time-Series Label_ is ‘Working’ and Time-Series ParameterType_ is ‘VB’. In Aquarius Manager, click on “Global Settings” tab and select row in the grid where setting group is “AQWebPortal” and setting key is “TimeSeriesFilter”, shown below:



Click on “Edit Record” button:

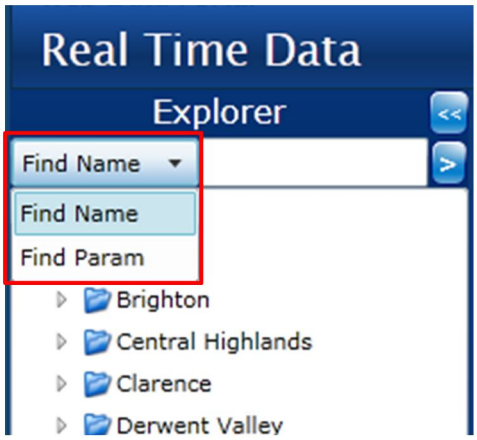


Insert "TS.Label_ = 'Working' and TS.ParameterType_ not in ('VB')" (in this SQL query "TS" is alias name used for "AqAtom_TimeSeries_" table in Aquarius database) in Setting Value box and click on OK button, as shown below:



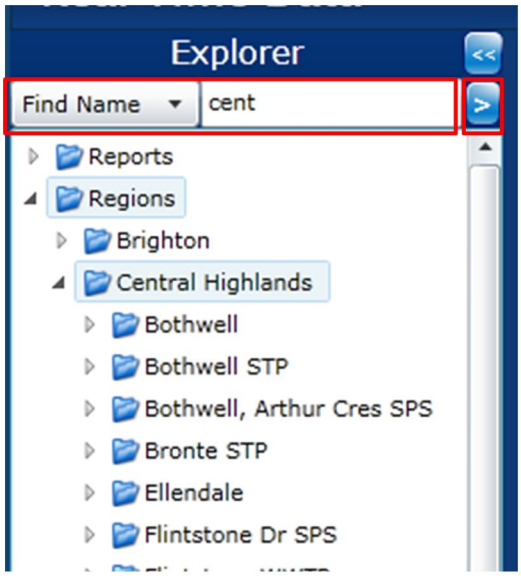
Searching Sites/Location in tree by name

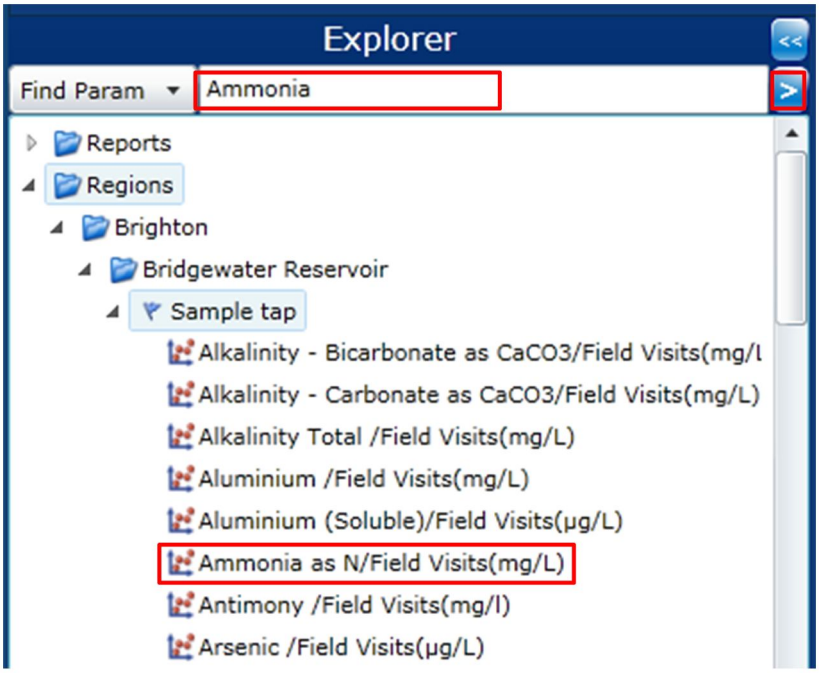
We can search sites or location in two ways - by name (name of site or location) and by parameter type. There is a dropdown list of these two options on the left hand side (above tree) in Web Portal, as shown below:



Find by Name

Select "Find Name" from the dropdown list and type the name you want to search in the tree. When you will click on ">" button on the right side focus would be set on the LocationFolder/Location matching entered text. As shown in below example we are searching for LocationFolder/Location having text "cent". When we will click on ">" button, focus would be moved to next matching name:



Find by Parameter

Select “Find Param” from dropdown list and type the parameter type you want to search in the tree. When you will click on “>” button on the right side, focus would be set on the location which has parameter type you have typed in. In example below, we are searching for parameter type “Ammonia”: